REMARKS

Receipt of the Office Action of April 30, 2008 is gratefully acknowledged.

REJECTION UNDER 35 USC 101

Claims 4 and 5 have been cancelled and new claims 6-9 have been added. In the new claims, terms "data storing means" and "look-ahead mapping means" are used instead of "data file" and "advanced mapping file", which are used in the specification. Claims 8 and 9 are different from claims 6 and 7 in that "entry"/"entries" has been changed to "register"/"registers", and accordingly, "(entry) address" has been changed to "(register) number". These changes should obviate the rejection under 35 USC 101 since functional structure has been defined.

REJECTION UNDER 35 USC 102

Claims 4-5 have been rejected under 35 U.S.C. 102(b) as being anticipated by Cliff et al (U.S. Patent No. 6,633,970).

Claims 4-5 are concerned with a look-ahead stack management system, which Cliff does not disclose. In fact, the word "stack" cannot be found in Cliff's specification. Accordingly, Cliff cannot, it is respectfully submitted, anticipate claims 4-5 or new claims 6-9.

The structure of the data file (data storing means) is described on page 16 line 14 - page 17 line 3. And, the structure of the advanced

mapping file (look-ahead mapping means) is described on page 14 line 23 - page 16 line 13 with reference to Fig. 3.

With the preferred embodiment disclosed in the present application, "Such a state of the operand stack of a traditional stack machine as { ..., word3, word2, word1 } (the right end is the top of the stack) corresponds to a state of the computer system of the present invention in which, with a, b, c, ... representing contents of mapping-file entries of address 0, 1, 2, ... respectively, word1, word2, word3, ... are (to be) held in the data-file entries whose addresses are a, b, c, ..., respectively" (page 15 lines 6-11). Namely, values of the top, 2nd, 3rd, ... element of the operand stack are (to be) held in the data-file entries whose addresses are indicated in the advanced-mapping-file entries of address 0, 1, 2, ... respectively. Therefore, a TOS (top of the stack) register is unneeded, since the entry (register) of the advanced mapping file corresponding to the top of the stack stays unchanged despite growth/shrinkage of the stack.

The general description of the action of the look-ahead stack management system according to claims 6-9 is described on page 23 line 21 - page 24 line 21 (See also: page 8 line 11 - page11 line 7).

An example action of processing two instructions, Instruction_1 and Instruction_2, is described on page 28 line 1 - page 32 line 25 with reference to Figs. 8-14. The state-modification field content of Instruction_1 is SM{ +2: f4, f1 }, which implies growing the stack by two elements. And, that of Instruction_2 is SM{ -2: }, which implies shrinking the stack by two elements. The state of the advanced mapping file 3a right after issuing of Instruction_1 / Instruction_2 is illustrated in Fig. 9 / Fig. 10,

which indicates that the advanced-mapping-file entry of address 0 is to correspond to the top of the stack.

The circuit for making a modification on a look-ahead mapping means can be streamlined by adopting the look-ahead stack management system according to claims 6-9. It is not possible to achieve this result with a traditional stack management system equipped with a circular buffer having a TOS register. And, the look-ahead mapping means can have a non-power-of-two number of entries (registers) for stack management.

In view of the foregoing, reconsideration and re-examination are respectfully requested and claims 6-9 found allowable.

Respectfully submitted,
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